

Serial No:09/607,162  
Filed: June 29, 2000  
Group Art Unit: 2672

REMARKS

Claims 1-20 are pending in the application.

Objections

The Patent Office has objected to the Information Disclosure Statement ("IDS") filed on November 17, 2000, because page 90 of the Yoneda article was missing. Applicant encloses page 90 of the Yoneda article with this response and kindly requests that the Patent Office consider the article as a part of the IDS.

Rejections

35 U.S.C. §102 Rejections

35 U.S.C. §102(e)

The Patent Office rejected Claims 1-4, 6, 11 and 12 as being anticipated by U.S. Patent 5,841,438 to Cave ("Cave").

To anticipate a claim, a single reference must teach each and every element of the claim<sup>1</sup>.

Specifically, regarding Claim 1, the Patent Office asserts that Cave allegedly discloses "separating data into graphical and multimedia data (Fig. 2A), providing three sequencing schemes within the multimedia data (Fig. 2A) a first scheme which is a hierarchical structure of bounding boxes to synchronize displayed graphical data with time ordered events (Fig. 2A), a second scheme which is a sequence map containing tracks, each track being a path through the bounding boxes (Fig. 2A), and a third scheme comprising a time map defining the time ordered events (Fig. 2A)." Applicant respectfully disagrees.

Upon review of the disclosure of Cave, Applicant's attorney has been unable to locate any disclosure of "logically separating data into graphical and multimedia data" as claimed in Claim 1. Referring to FIG. 2A and column 6, lines 19-21 of Cave, it can be seen that merely "a playback score 201 in a style similar to graphical media object orchestration and playback displays known in the art" is illustrated, with no mention of logically separating the multimedial object into at least two data subsets.

<sup>1</sup> *Veregal Bros. v Union Oil Co. of California*, 814 F.2d 628, 631, 2USPQ2d 1051, 1053 (Fed. Cir. 1987).

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Claim 1 also recites "providing a second sequencing scheme comprising a sequence map containing one or more tracks, each track being a path through the hierarchical structure of bounding boxes and providing a third sequencing scheme comprising at least one time map defining the series of time ordered events". No disclosure, teaching or even suggestion corresponding to that element of Claim 1 could be found in Cave. FIG. 2A of Cave merely illustrates a playback score. Applicant's attorney has been unable to locate in Cave any disclosure of a hierarchical structure of bounding boxes or of a sequencing scheme containing a path through bounding boxes, as claimed in Claim 1.

Moreover, Applicant's attorney has been unable to locate in Cave any disclosure of a hierarchical structure of bounding boxes and, subsequently any disclosure of bounding boxes defined for a musical score, as claimed in Claim 1. Referring to column 6, lines 23-27 of Cave, Applicant respectfully assert that Cave does not assign, and thus does not disclose, a hierarchical structure to the playback icons. In fact, column 6, lines 27-30, of Cave appears to disclose the exact opposite by describing that the "system designer may add, drop and move playback icons 205 around playback grid 203, effecting temporal changes in the "orchestral" playback sequence of the combined corresponding playback." Therefore, Cave cannot anticipate Claim 1. Claim 1 is allowable. Claims 2-4 and 6 are allowable as depending off allowable Claim 1.

Regarding Claim 11, the Patent Office asserts that Cave allegedly discloses "using the bounding boxes to position and zoom the displayed interactive graphics in response to user input (col. 8, lines 37-46)." Moreover, the Patcnt Office asserts that Applicant's Claim 11 claims "a method performed in the computer of Claim 1" and that "the rational applied in the rejection of Claim 1 applies herein." Applicant respectfully disagrees.

Neither the disclosure of "providing a hierarchical set of bounding boxes", nor the assignment of any hierarchical structure to the icons could be found in Cavc. Column 8, lines 41-42, of Cave merely discloses that the "designer may move an entire download icon 257 around on grid 253." Moreover, the disclosure of providing "utilizing a hierarchy of bounding boxes to facilitate positioning and zoom of the displayed interactive graphics in response to a user's input" as claimed in Claim 11 could not be found in Cave either. Column 8, lines 38-42, of Cave discloses that "the system designer manipulates the shape and position of download icons 257, advantageously using well-known "drag-and drop" mouse operation techniques, so that all icons 257 fit within pipe 255 without any overlap or overhang." In Column 8, lines 47-48, Cave

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discloses that the "system always maintains the total topographical area of the icon constant". Thus, the method in Cave cannot perform a zoom of displayed interactive graphics, as claimed in Claim 11 of the present application.

Thus, it is clear that Cave does not contain or describe each and every element set forth in Claim 11. Applicant respectfully asserts that Claim 11 cannot be anticipated by Cave and is allowable. Claim 12 depends off allowable Claim 11 and is allowable.

#### 35 U.S.C. §103 Rejections

The Patent Office rejected Claims 5, 7-10, and 13-16 under 35 U.S.C. §103(a) over Cave and further in view of U.S. Patent 5,690,496 to Kennedy ("Kennedy"). Additionally, the Patent Office rejected Claims 17-20 under 35 U.S.C. §103(a) over Cave and further in view of U.S. Patent 5,889,860 to Eller ("Eller").

For an obviousness rejection to be proper, the Patent Office must meet the burden of establishing a *prima facie* case of obviousness by specifically pointing out a suggestion, teaching or motivation to modify a reference or combine references to come up with the claimed invention<sup>2</sup>. Under *In re Lee*<sup>3</sup>, the motivation to combine references must be explicitly found in the references, and the so-called common knowledge is not a substitute for evidentiary findings.

Neither Cave nor Kennedy nor Eller alone or combined motivate, disclose or teach anything close to the invention claimed in independent claims 5, 7, 14, and 17. For example, the Cave patent does not mention even once anything relating to the hierarchical structure of bounding boxes of the multimedia data subset logically separated from the graphical data subset for efficient transmission. If the Cave patent was related in any way to the logical division of graphical and multimedia data in a multimedia object and to building a hierarchical structure as described and claimed in the present invention, the words "logically" and "hierarchical" would appear there at least once. Applicant's attorney searched the Cave and Kennedy patents and could not find any of the words there. Please see the screen shots reproduced below.

<sup>2</sup> *In re Sang Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

<sup>3</sup> *Id.*

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United States Patent: 5,841,438 - Microsoft Internet Explorer

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Address: http://uspto-patentServer/USPTO-Net/HTMLSearch/Basic.htm?r=1&t=G&S0&s1=ANDed+pat%23+5841438.WKJ.S05=PV/S841438.PN/S841438.Links??

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5,841,438

November 24, 1998

**United States Patent**  
**Cave**

**Visual aid for bandwidth allocation in multimedia scripting tools**

**Abstract**

A visual tool for scheduling the delivery of media objects within varying constraints of available bandwidth is enabled by software executable on a general purpose multimedia grade computer, a system designer or represented as playback icons on a playback "score" analogous to a musical score. The present invention is a score, on which download icons (corresponding to playback icons on the playback score) are initially deployed according to default rules. The topographical area of the download icons, as displayed, corresponds to the data size of the media objects. The designer then ordains a bandwidth constraint ("pipe") causing the download icons to be compressed into the pipe, likely overlapping. The designer may now arrange the download icons within the pipe by adapting the shape of the download icons into square-cornered polygons that no longer overlap within the pipe. The system meanwhile keeps the topographical area of the download icons constant, regardless of the shape into which the designer adapts them. Eventually, as the playback score becomes more information-rich, the designer will no longer be able to adapt the shape of download icons within the pipe without causing delivery to fall behind demand for playback. The invention highlights this condition to the designer, who must then take corrective action.

Inventors: Cave, Ellis K. (Garland, TX)

Cave patent, search for "hierarchical"

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Filed: June 29, 2000  
Group Art Unit: 2672

United States Patent 5,841,438 - Microsoft Internet Explorer

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United States Patent	Find what: <input type="text" value="logically"/> <input type="button" value="Find Next"/>	Cancel
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**Visual aid for bandwidth allocation in multimedia scripting tools**

**Abstract**

A visual tool for scheduling the delivery of media objects within varying constraints of available bandwidth is disclosed. The system is enabled by software executable on a general purpose multimedia grade computer, a system designer creates a playback score represented as playback icons on a playback "score" analogous to a musical score. The present invention provides a playback score, on which download icons (corresponding to playback icons on the playback score) are arranged according to bandwidth allocation rules. The topographical area of the download icons, as displayed, corresponds to the data size of the media objects. The designer then designs a bandwidth constraint ("pipe") causing the download icons to be compressed into the pipe, likely overlapping. The designer may now arrange the download icons within the pipe by adapting the shape of the download icons into square-cornered polygons that no longer overlap within the pipe. The system meanwhile keeps the topographical area of the download icons constant, regardless of the shape into which the designer adapts them. Eventually, as the playback score becomes more information-rich, the designer will no longer be able to adapt the shape of download icons within the pipe without causing delivery to fall behind demand for playback. The invention highlights this condition to the designer, who must then take corrective action.

**Inventors:** Cave, Ellis K. (Garland, TX)

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Cave patent, search for "logically".

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United States Patent: 5,699,496 - Microsoft Internet Explorer

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5,699,496

November 25, 1997

United States Patent  
Kennedy

Multimedia product for use in a computer for music instruction and use

Abstract

A multimedia product for use for use in a multimedia computer to assist a student to learn to play a given musical work previously recorded on a master recording. A method of making the product is described which ensures that multimedia representations of the work are properly synchronized to the actual tempo variations, if any, in the master recording. A method of using the product for music training is also described.

Inventors: Kennedy, Stephen E. (Dallas, TX)  
 Assignee: Red Ant, Inc. O  
 Appl. No.: 629527  
 Filed: August 8, 1996

Current U.S. Class: 434/307R; 84/610; 345/473; 434/307A; 715/500.1  
 Intern'l Class: G09B 005/00

Kennedy patent, search for "logically".

Serial No:09/607,162  
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5,698,496 November 25, 1997

United States Patent Kennedy

Multimedia product for use in a computer for music instruction and use

Abstract

A multimedia product for use in a multimedia computer to assist a student to learn to play a given musical work previously recorded on a master recording. A method of making the product is described which ensures that multimedia representations of the work are properly synchronized to the actual tempo variations, if any, in the master recording. A method of using the product for music training is also described.

Inventors: Kennedy, Stephen E. (Dallas, TX)  
 Assignee: Red Ant, Inc. O  
 Appl. No.: 689527  
 Filed: August 8, 1996

Current U.S. Class: 434/307R; 84/610; 345/473; 434/307A; 715/500.1  
 Intern'l Class: G09B 005/00

Kennedy patent, search for "hierarchical".

The Eller patent describes an encrypted communication system. Nowhere in the Eller patent could there be found a description of logically separating various types of data in a multimedia file and further describing the multimedia data subset having the hierarchical structure of bounding boxes. Therefore, none of the cited patents, alone or combined, discloses or teaches the invention claimed in the independent Claims of the present application. Applicant argues that independent Claims 5, 7, 14, and 17 are allowable. If the Patent Office disagrees, it is respectfully asked to provide the column/line numbers in the cited patents where the teaching or motivation to combine resulting in the claimed invention could be found, as required under *In re Lee*<sup>4</sup>.

<sup>4</sup> Id.

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In particular reference to independent Claim 14, nothing in Cave alone or in combination with Kennedy teaches a hierarchical set of bounding boxes within the multimedia data, as claimed in independent Claim 14. The playback icons 205 in Cave define a bandwidth and a time duration within which an object can be played (Col. 6, lines 23-27 of Cave). To the contrary, as it is extensively described in the present application, including the illustration in Fig. 3, the hierarchical structure of the bounding boxes of the present invention delineates the areas of the graphics (such as a page of a musical score) where a note or a chord should be positioned in the graphical representation of a musical piece. Nothing could be found in the Cave patent alone or in combination with Kennedy to hint to the hierarchical structure as claimed in Claim 14. Therefore, the obviousness rejection should be withdrawn and Claim 14 should be allowed. Claim 15-16 are allowable as depending off allowable Claim 14.

Regarding independent Claim 17, Applicant respectfully asserts that Cave does not disclose or teach "providing a hierarchical structure of bounding boxes", as claimed in Claim 17 in light of the specification and drawings of the present application. Furthermore, Applicant's attorney has been unable to locate any teaching or disclosure of "utilizing contiguity and hierarchy of the bounding boxes to eliminate repetitive encoding of contiguous elements", as claimed in Claim 17. Nothing could be found in the Eller patent to teach or suggest or hint to the hierarchical structure of the bounding boxes, or to explain how to use the structure of the bounding boxes to compress graphical data. Therefore, independent Claim 17 is allowable together with its dependent Claim 18-20.

### CONCLUSION

It is believed that Claims 1-20 are allowable. Accordingly, Applicants respectfully request withdrawal of the objections and rejections. Allowance of the Claims is respectfully requested. Applicant's Attorney request that the Patent Office call Applicant's Attorney with any questions to facilitate allowance of this case.

Respectfully submitted,

Dated:

February 23, 2003

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